

REMARKS

Applicants have amended claims 1, 14, 43, and added new claims 76-81. Claims 19, 37-42, and 44-72 were previously withdrawn. Thus, the pending claims are claims 1-18, 20-36, 43, and 73-81, of which claims 1, 14, and 43 are in independent form.

Claim Rejections – 35 U.S.C. § 103

Claims 1-18, 20-36, and 43 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Barath (U.S. Patent No. 5,196,024). Independent claims 1, 14, and 43 recite an inflatable balloon having a first material and a second material (or striped portion) encapsulated by the first material. Barath neither discloses nor suggests a second material (or striped portion) encapsulated by a first material.

Barath, as shown in Figs. 7 and 8, describes a cutting balloon that includes multiple metallic plates (13) attached to the outer surface of the balloon. Metallic cutting edges (6) are attached to the metallic plates (13). When the balloon is deflated, the metallic cutting edges (6) are partially covered by folds (14) of the balloon. *See* col. 4, lines 52-61. In another embodiment, as shown in Fig. 14, Barath describes a balloon including multiple cutting edges in the form of specially shaped wires (19) sitting in grooves (14) on the balloon surface. The wires are not mounted to the balloon surface, which allows the wires to slide freely in a longitudinal motion within the groove. Like the cutting balloon of Figs. 7 and 8, the cutting balloon of Fig. 14 folds when it is deflated to partially surround the cutting edges. *See* col. 5, lines 34-55. Barath neither discloses nor suggests encapsulation of a second material by a first material.

For at least the reasons discussed above, Applicants request that this rejection be withdrawn.

Claims 1-18, 20-36, 43, and 73-75 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Grayzel (U.S. Patent Publication No. 2002/0010489). As discussed above, independent claims 1, 14, and 43 recite an inflatable balloon having a first material and a second material (or striped portion) encapsulated by the first material. Grayzel neither discloses nor suggests these features.

Grayzel describes a balloon with multiple stiffening members attached thereto. Grayzel describes both continuous stiffening members (Fig. 1) and discontinuous stiffening members (Fig. 2), and notes that, in some embodiments, the continuous stiffening members and the discontinuous stiffening members can be positioned in the balloon material, as shown in Fig. 5B. *See* ¶ 0069. However, Grayzel neither discloses nor suggests that the balloon of such embodiments can be arranged to carry cutting elements.

The Examiner contends that it would have been obvious to one having ordinary skill in the art at the time Applicants' invention was made to employ Grayzel's projection (104) to co-act with Grayzel's stiffening member (114) in order to pierce/cut occlusions. As support for this contention, the Examiner relies on paragraph 0018 of Grayzel, which states, "The stiffening members, as well as the individual elements, may act independently or cooperate to form one or more larger structures. Multiple stiffening elements may co-act via one or more attaching elements (e.g., a filament) between individual elements." This paragraph, however, would not have motivated a person of ordinary skill in the art to combine the independently disclosed projections (104) with the independently disclosed stiffening members (114). The above-referenced paragraph merely explains, as disclosed throughout the remainder of Grayzel's specification, that multiple projections and/or stiffening members can be connected (e.g., attached) to one another to form larger structures. Such structures are shown in Figs. 2 and 7A-7G in which multiple stiffening members and/or projections are attached to one another. With respect to Fig. 2, for example, Grayzel notes that the stiffening members (46) include multiple projections (48) that are attached to or integral with the stiffening members (46). *See* ¶ 0058. At no point does Grayzel disclose or suggest that the stiffening members could be used in conjunction with cutting elements or any other type of projection carried by the balloon.

Moreover, with respect to Applicants' claims 73-75, Grayzel fails to disclose or suggest cutting elements that are spaced from a second material (or striped portion). Rather, as discussed above, Grayzel merely describes projections that are attached (e.g., integrally attached) to the stiffening members.

In light of the discussion above, Applicants request that this rejection be withdrawn.

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Newly Added Claims

Applicants have added new claims 76-81. Claims 76-78 recite that the second material (or striped portion) comprises a polymer. Claims 79-81 recite that the second material (or striped portion) is encapsulated by the first material when the balloon is inflated. None of the cited references discloses or suggests each and every feature of Applicants' newly added claims. Therefore, Applicants request that these claims be allowed.

Enclosed is a \$300 check for excess claim fees. Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

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